1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

and discarded hupfs, a broken fictile figurine, etc), was the still ruder arrowpoint represented in figure 37*b* (both figures are natural size). The specimens are nearly identical in material—a jet-black slaty rock with a few lighter flecks interspersed, weathering gray on long exposure (as is shown by the partly natural surface of the larger point); similar rock abounds in several easterly spurs of Sierra Seri. The smaller specimen was evidently finished and used; its features indicate fairly skilful chipping, though its general form is crude—in addition to the asymmetric shouldering, the entire point is curved laterally in such manner as to interfere with accurate archery. The larger specimen is still more strongly curved laterally, and the chipping is childishly crude; while the rough surface, clumsy tang, and unfinished air indicate that it was never used even to the extent of shafting. It is possible that the specimens may have been imported by aliens, but the probabilities are strong that they were manufactured by the Seri. No other arrowpoints and no chips or spalls suggesting stone arrow-making were found in all Seriland, though the entire party of twelve were on constant lookout for them for a month. The natural inference from these facts is that the ancestral Seri, like their descendants, were not habitual stone arrow-makers.

There is a final category of Seri artifacts which would be classed as distinctive by Caucasians on the basis of material, though they are combined with the stone artifacts by the tribesmen; it comprises arrow-points of hoop-iron or other metal, harpoon-points of nails, spikes, or wire, awls of like materials, and other metallic adjuncts to ordinary implements. The use of iron is of course post-Columbian, and its ordinary sources are wreckage and stealage. The date of introduction is unknown, and probably goes back to the days of Cortés and Mendoza; certainly the value of metal was so well understood in 1709 that when Padre Salvatierra's bilander was beached in Seriland the tribesmen at once began to break her up for the nails (ante, page 67); yet the metal is wrought cold and only with hupf and abat like the local materials, and is habitually regarded and designated as a stone. By reason of the primitive methods of working, the metals are of course available only when in small pieces or slender shapes. There is a tradition among the vaqueros of the frontier that a quantity of hoop-iron designed for use in making casks was carried away from a rancheria in the vicinity of Bacanchito during a raid in the seventies, and that this stock has ever since served to supply the Seri with material for their arrowpoints; but it is probable that the chief supply is derived from the flotsam swept into the natural drift trap of Bahia Kunkaak by prevailing winds and tidal currents, and cast up on the long sandspit of Punta Tormenta after every storm. A surprising quantity and variety of wreckage was found on this point, and thence down the coast to Punta Narraganasett, by the 1895 expedition: staves and heads of casks broken up after beaching, a telegraph pole crossbar which had evidently

1: McGee E-5 (1894-1895)1698 NU31 Seri NU31

abundant material; (3) that the great majority of the objects so employed are discarded after a use or two; (4) that when the object proves especially serviceable, and other conditions favor, it is retained to meet later needs; (5) that the retained objects are gradually modified in form and surface by repeated use; (6) that if the modification diminishes the serviceability of the object in the notion of the user (a. g., by such fracture as to produce sharp edges), it is discarded; (7) that if the modification enhances the serviceability of the specimen in the mind of the user it is the more sedulously preserved; and (8) that through the instinctive desire for perservation, coupled with the thaumaturgic cast of primitive thinking, the object acquires at once an artificialized form and a fetishistic as well as a utilitarian function. The significant feature of the development is the total absence of foresight or design, save in so far as the concepts are fiducial rather than technical or directly industrial.

II. On reviewing the almost insignificantly small group of chipped stone artifacts, it seems clear that while the material is local the design is so incongruous with custom and characteristic thought as to raise the presumption that stone-chipping is an alien and imperfectly assimilated craft. The conspicuous and significant feature of the chipped stone artifact is the shapement in accordance with preconceived design.

III. On reviewing the arbitrarily separated group of metallic artifacts it is found clear (1) that the material is foreign; (2) that it is avidly sought and sedulously saved and utilized; (3) that it is wrought only by the crude methods used for fashioning the most primitive of implements and tools; and (4) that it is used chiefly as a substitute for organic substances employed in symbolic imitation of the natural organs and functions of animals. The significant features of the use of iron artifacts are (*a*) the absence of either alien or specialized designs, and (*b*) the mimicry of bestial characters as conceived in primitive philosophy.

Classed by material and motive jointly, the three groups are diverse in important respects: The first is local in material, local in motive; the second is local in material, foreign in design; the third is foreign in material, local in motive.

On recapitulating the several phases of Seri handicraft, the devices are found to fall into genetic classes of such sort as to illumine certain notable stages of primitive technic.

The initial class comprises teeth, beaks and mandibles, claws, hoofs, and horns, used in imitation or symbolic mimicry of either actual or imputed function of animals, chiefly those to which the organs pertain, together with vegetal spines and stalks or splints, used similarly under the zootheistic imputation of animal powers to plants; also carapaces and pelts, used as shields combining actual and symbolic protective functions. While this class of devices is well displayed by the Seri, it is by no means peculiar to them; clear vestiges of the devices have

225 In fishing for turtle, one man stands at the bow of the boat, holding the mainshaft and extension cord in one hand. When he sights a turtle, he propels the mainshaft at the animal's carapace, retaining a firm grip on the mainshaft and the extension cord. If it is struck, the turtle lurches away, loosening the foreshaft and unplugging it from the mainshaft. Tired eventually by the tension [411] applied by the fisherman on the extension cord, the turtle is finally stunned by a wooden club and lifted into the boat.

225 There is evidence that the turtle-fishing complex has consider-175 able time depth and stability. The Seri were using similar apparatus and methods at least as early as 1825 (Hardy 1829: 296-297). At [501] this time they employed balsa boats rather than wooden boats with outboard motors and torches of cactus fibers instead of kerosene lamps. The complex continued, apparently with little change, through 1896 (McGee 1898: 187-193). Wooden boats and kerosene [177] lamps began to be adopted during the 1920s, and outboard motors were introduced in the 1940s.

411 During the entire period of 135 years (1825-1960), however, the harpoon tackle underwent only one important innovation. The 225 gasket on the foreshaft was introduced by a Seri Indian about the 176 year 1935. The addition of the gasket was related to, and coincided [439] in time with, the first attempts of the Seri to supply turtles to the commercial market. When they caught turtles solely for their own use, they did not need to keep the animals alive for very long, but when they began to sell them it became important to preserve them alive until they reached the market. The gasket acts like the hilt on a sword, preventing the entrance of the foreshaft hafting into the turtle's body. Through its contact with the carapace, it restricts the rotation of the point within the animal's body and provides a seal which inhibits the loss of blood, and thus prevents early death. After the turtle is stunned with a club and lifted into the boat, the foreshaft is removed and the hole which it made is stuffed with a piece of cloth.

124 Seri men were shown a harpoon foreshaft from a museum archive and asked what it was for and whether they themselves made similar 411 ones. If an informant acknowledged that he made them, he was asked, at the minimum, to detail the materials he used, the procedures he followed, and the approximate amount of time it would take him to produce one. Later he was requested to show the field worker examples of the foreshafts he had made. Of the approximately 40 adult Seri males, about 25 were available for questioning. Of these, approximately ten did not make foreshafts or had made them in the past but did so no longer; they were mainly older men and those [474] engaged in the administration of the Sociedad Cooperative de Pro-[887] duccion Pesquera Seri. Five men either would not or could not volunteer information. Data were obtained from the remaining ten adult men and from one eight-year-old boy; they include 21 foreshafts made by these eleven people.

411 The materials from which a foreshaft can be shaped and as-325 sembled vary within what is available in the Seri environment. Iron

8: Ascher E-5 (1960) 1962 NU31 Seri NU31

for the point may come from the transmission of an abandoned car or from flotsam. The wood for the hafting can be mesquite or ironwood, both indigenous in the area; waste from boat construction or other scraps of wood may also be used. Rubber for the gasket may be obtained from a worn automobile tire. The wrapping cord and lead cord are store bought, and mesquite gum is used to seal the hafting.

In manufacturing foreshafts Seri fishermen use three tools: a knife, a hacksaw blade, and a triangular file. The hacksaw blade is used to cut an appropriate length of metal for the point and to rough out the barb; the triangular file is employed to finish the point barb and stem; the tang of the file is used to puncture the hole in the gasket which is to receive the point. The shaping of the hafting and gasket, and the cutting and wrapping of the lead cords, are accomplished with a knife.

With regard to the method of manufacture, all fishermen report essentially the same procedure. They describe the pattern as a series of steps under two headings: (1) shaping and (2) assembling. Two individuals did not mention steps 1c and 2b, and the others considered these two steps to be optional.

1) Shaping
   a) Shaping the metal into a point
   b) Shaping the wood for hafting the point
      α) Shaping the general form
      β) Splitting the form lengthwise and grooving each half to receive the point (see section in Figure 1)
   c) Shaping the rubber for the gasket

2) Assembling
   a) Placing the mesquite gum in the grooved portions of each half of the hafting (see section in Figure 1)
   b) Placing the gasket on the point
   c) Inserting the point base into the hafting and reuniting the split hafting form
   d) Wrapping with the wrapping cord and with it interweaving the lead cord
   e) Refinishing the hafting base to fit the mainshaft socket

Four men were able to explain the foregoing procedure in detail and were in agreement in the following matters. The point is shaped before the hafting because its length determines the length of the latter, and because the diameter of the point base dictates the grooving of the haft. The gasket is shaped after the point and the hafting because the diameter of its hole is determined by that of the point base and its total diameter by that of the hafting. The mesquite gum then secures the point and seals the hafting. Interweaving the lead cord with the wrapping cord secures the former to the hafting.

The amount of time required to complete a foreshaft shows marked variation. This is not primarily a function of the working habits of the artisan. If all the materials are present, the time it takes to make a foreshaft ranges from four to eight hours, but if all the materials are not available, as much as a year may be required. There may, for example, be a considerable lapse of time between the shaping of a point and the shaping of a gasket when material for the

123 We have given the Seris so much we are now short ourselves. Variety is very restricted. We haven't enough tin dishes or tools to go around, but that does not trouble us at all. All the cleaning is done in salt water and sand. Fresh water is only used to drink. Nothing else. We can't even take a shave. Not a drop of water. We are very lax in our personal toilets and appearance. We are barefooted always in the boat, as we have to wade to get the boat in deep water, and often the waves slosh on board.

This boat is made of a hollowed log twenty feet long and three feet, three inches wide, and she is very cranky. She almost upset with us several times. When everybody is placed in it, it is difficult to even change a posture without endangering everybody. She has no keel and leaks some, so we have to bail out often. But she is a good sea boat and rides the waves well if they are not too rough.

123 439 [203] [484] One evening we decided to get a message through to Juan Tomas, the Chief, some twenty or thirty miles distant. Herrera promised to go if we gave him twenty thirty-thirty cartridges. He would go one day and return the next, a round trip of about fifty miles. We gave him the message to tell those people we had a lot of things to trade for the things they use in every day life. Pelican skin kilts, bows and arrows, ollas, baby cradles, hair brushes and other interesting things. I had already made a trade with Blanco for his *balsa*, promising him sufficient lumber, nails and tools, to make a boat large enough to carry five men. This promise I fulfilled to the letter, and later on another expedition to Seriland I had the pleasure of sailing in this boat, which was well built and seaworthy. The unusual part of this bargain was that Blanco permitted me to deprive him of his only means (apparently) of making a living in hunting *cahuasa* for himself and his family, freely and without hesitation, simply on my promise of lumber in the future. I was deeply touched by the trust reposed in me by this old sea rover.

322 [508] These people are splendid mechanics with the crudest of tools---rocks, fire, bones, knives. For instance, the pole of the harpoon was composed of five pieces of driftwood and a seagoing boat which I saw in Guaymas, captured by Mexican fishermen after killing the Seri crew, was composed of fully one hundred pieces of driftwood fastened with nails made of wire, and tied with fiber, and all the seams were filled with a black composition of native origin resembling pitch. Previous [325] to the use of old iron, harpoon points were made of ironwood, but now iron is universally used.

283 [122] I asked old Blanco for some of his native rope. He gave me some of it. He said they get the slender roots of the mesquite and peel the bark, and then the girls and women chew the fibrous wood. This is shredded and twisted into small two-stranded ropes. It is this rope, tied around and around, that holds the *carriso balsa* together.